

C. Perley,
Winallaps.

N^o 53,178.

Patented Mar. 13, 1866.

Fig. 1.

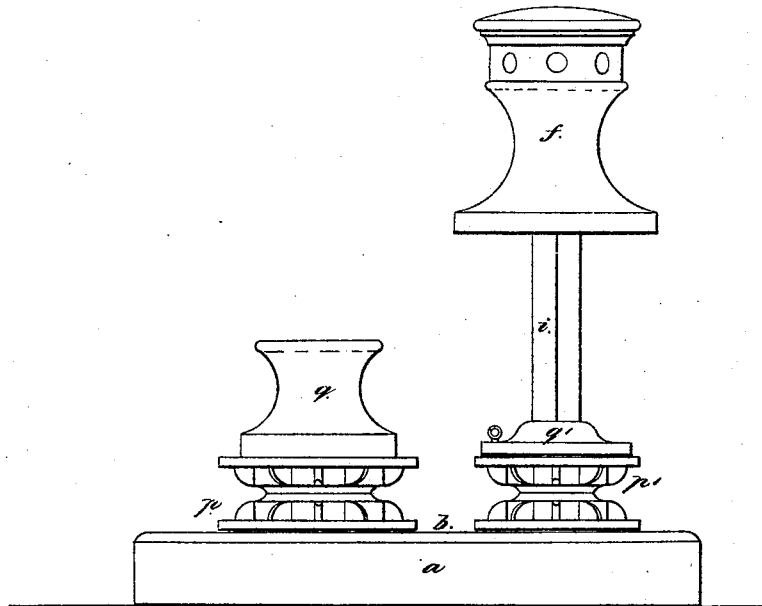
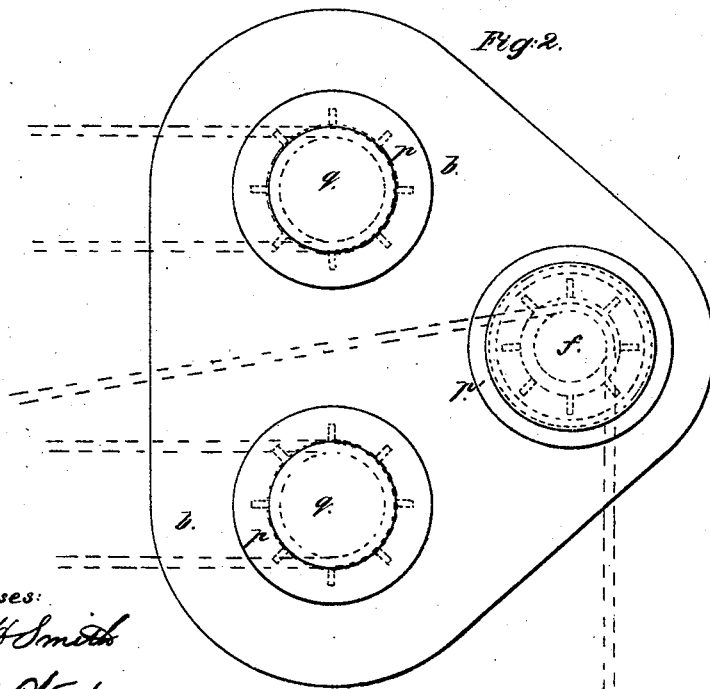


Fig. 2.



Witnesses:
Chas H Smith
Geo D Walker

Inventor:
Charles Perley

UNITED STATES PATENT OFFICE.

CHARLES PERLEY, OF NEW YORK, N. Y.

IMPROVED VERTICAL WINDLASS.

Specification forming part of Letters Patent No. 53,178, dated March 13, 1866.

To all whom it may concern:

Be it known that I, CHARLES PERLEY, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Vertical Windlasses; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a side view of my improved windlass, and Fig. 2 is a plan of the same.

Similar letters denote the same parts.

In Letters Patent granted to me May 5, 1863, a triangular capstan or vertical windlass is represented, the capstan *f* and chain-wheels *p* occupying a triangular position. In this patent an arrangement of wheels is shown for communicating to the chain-wheels *p* a slower movement than to the capstan *f*, hence increasing the power of said chain-wheels *p*.

My present invention is an improvement upon that set forth in the aforesaid Letters Patent, and the same letters refer to like parts; hence it is unnecessary in this specification to go into the details of construction and operation of the respective parts or to show all the gearing and operative parts.

In the Letters Patent aforesaid both chain-wheels *p* are given a slower motion than the capstan *f*. It is found, however, that in vessels engaged especially in inland navigation and coasting trade it is important to have two heavy chains and anchors for use in storms and one lighter chain and anchor for temporary use or for calm weather, and that the aforesaid chain-wheels *p* move too slowly for rapidly drawing up the light anchor.

The nature of my said invention consists in a chain-wheel upon the capstan-shaft capable of being connected with the same, in combination with a power capstan or windlass driven by gearing that connects the said capstan-shaft with the said power windlass or chain-wheel, whereby the apparatus has facility for operating upon a heavy chain with a slow motion or upon a lighter chain with a faster motion, thus adapting this apparatus to vessels engaged in coasting or inland trade.

In the drawings, *a* is the triangular base of the capstan; *b*, the top plate of the same; *p*, the chain-wheels; *q*, the power-capstan; and *f* is the capstan, with sockets *h* for the hand-spikes. These parts are to be substantially the same as in aforesaid patent, the shaft *i* of the capstan *f* being connected, by suitable gearing in the base *a*, with the shafts of the chain-wheels *p* and capstans *q*. Around the shaft *i* of the capstan *f* is a chain-wheel, *p'*, adapted to a smaller chain than the wheels *p*, and this chain-wheel *p'* may be connected to the shaft *i* by means of a key or pin introduced through a wheel or disk, *q'*, upon the square shaft *i*, entering a hole or recess in said chain-wheel *p'*, or any other suitable device may be provided for connecting the chain-wheel *p'* with the shaft *i* or disconnecting it therefrom, so that the capstan *f* can be worked while the chain-wheel *p'* is stationary, or the chain-wheel *p'* allowed to revolve as the chain is run out without rotating the said capstan *f*. This chain-wheel *p'* may be sustained upon balls, if desired, to avoid friction, and the chains to the respective chain-wheels may be led in the direction indicated by the red lines.

It will be evident that if more than three chains are employed there may be an increased number of chain-wheels placed either one above the other on the shaft *i* and on the shafts of the wheels *p*, or the base *a* may be adapted to the reception of three or more chain-wheels *p* and power-capstans *q*. The capstan *f* may be sufficiently high to be operated upon the deck above or it may be placed upon the chain-wheel *p'*.

What I claim, and desire to secure by Letters Patent, is—

The chain-wheel *p'*, in combination with the capstan *f* and chain-wheel *p*, substantially as set forth.

In witness whereof I have hereunto set my signature this 31st day of January, A. D. 1866.

CHARLES PERLEY.

Witnesses:

LEMUEL W. SERRELL,
GEO. D. WALKER.